

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

| | | |
|---|---|-------------------------------|
| APPLE, INC., |) | |
| |) | |
| Plaintiff, |) | C.A. No. 1:22-cv-01378-MN-JLH |
| |) | |
| v. |) | |
| |) | |
| MASIMO CORPORATION and SOUND |) | JURY TRIAL DEMANDED |
| UNITED, LLC, |) | |
| |) | |
| Defendants. |) | |
| |) | |
| <hr/> |) | |
| SOUND UNITED, LLC, |) | |
| |) | |
| Counter-Claimants, |) | |
| |) | |
| v. |) | |
| |) | |
| APPLE INC., |) | |
| |) | |
| Counter-Defendant. |) | |
| <hr/> |) | |
| <u>DEFENDANT SOUND UNITED, LLC’S ANSWER TO COMPLAINT AND COUNTERCLAIMS</u> | | |

Defendant Sound United, LLC, (“Sound United”) hereby submits its answer to the Complaint of Plaintiff Apple Inc. (“Plaintiff” or “Apple”) and counterclaims as follows:

INTRODUCTION

1. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 1 of the Complaint, and on that basis denies those allegations.
2. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 2 of the Complaint, and on that basis denies those allegations.
3. The allegations in Paragraph 3 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.
4. The allegations in Paragraph 4 of the Complaint are not directed against Sound

United and, therefore, no answer is made to these allegations.

THE PARTIES

5. Sound United admits the allegations in Paragraph 5 of the Complaint.

6. Sound United admits the allegations in Paragraph 6 of the Complaint.

7. Sound United admits that it is a Delaware limited liability company, is a wholly owned subsidiary of Masimo, and has appointed the Corporate Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808 as its registered agent for service of process. Sound United denies the remaining allegations in Paragraph 7 of the Complaint.

8. The allegations in Paragraph 8 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies the allegations.

JURISDICTION AND VENUE

9. Sound United admits the allegations in Paragraph 9 of the Complaint.

10. Sound United admits that it is subject to personal jurisdiction in this Court. The remaining allegations in Paragraph 10 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

11. Sound United admits that venue is proper in this Court with respect to Sound United. The remaining allegations in Paragraph 11 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

BACKGROUND

12. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 12 of the Complaint, and on that basis denies those allegations.

13. Sound United admits that Apple has accused the W1 watch and charger of patent

infringement. Sound United denies the remaining allegations in Paragraph 13 of the Complaint.

14. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 14 of the Complaint, and on that basis denies those allegations.

15. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 15 of the Complaint, and on that basis denies those allegations.

16. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 16 of the Complaint, and on that basis denies those allegations.

17. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 17 of the Complaint, and on that basis denies those allegations.

18. Sound United admits that U.S. Patent Nos. 10,627,783 and 10,987,054 name Apple, Inc. as the “Applicant” and “Assignee” on the face of each patent. Sound United denies the remaining allegations in Paragraph 18 of the Complaint.

19. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 19 of the Complaint, and on that basis denies those allegations.

20. Sound United lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 20 of the Complaint, and on that basis denies those allegations.

21. The allegations in Paragraph 21 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

22. Sound United admits that in April 2022 it was acquired by Masimo. The remaining allegations in Paragraph 22 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

23. The allegations in Paragraph 23 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

24. The allegations in Paragraph 24 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

25. The allegations in Paragraph 25 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

26. The allegations in Paragraph 26 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

27. The allegations in Paragraph 27 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

28. The allegations in Paragraph 28 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

29. The allegations in Paragraph 29 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

30. The allegations in Paragraph 30 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

31. The allegations in Paragraph 31 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

32. The allegations in Paragraph 32 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

33. The allegations in Paragraph 33 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

34. The allegations in Paragraph 34 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

35. The allegations in Paragraph 35 of the Complaint are not directed against Sound

United and, therefore, no answer is made to these allegations.

36. The allegations in Paragraph 36 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

37. Sound United admits that in April 2022 it was acquired by Masimo. The remaining allegations in Paragraph 37 are not directed against Sound United and, therefore, no answer is made to these allegations.

38. Sound United admits that the referenced article states, “But, now Masimo has launched its own W1 watch to compete with Apple. This feels more personal than fiduciary.” The remaining allegations in Paragraph 38 are not directed against Sound United and, therefore, no answer is made to these allegations.

39. The allegations in Paragraph 39 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

40. The allegations in Paragraph 40 of the Complaint are not directed against Sound United and, therefore, no answer is made to these allegations.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,076,257

41. Sound United repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–40.

42. Sound United admits that U.S. Patent No. 10,076,257 (“’257 Patent”) lists on its face the title “Seamlessly Embedded Heart Rate Monitor,” an issue date of September 18, 2018, “Gloria Lin” as one of many named inventors, and “Apple Inc.” as the assignee. The remaining allegations in Paragraph 42 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies that the ’257 Patent was validly issued.

43. The allegations in Paragraph 43 of the Complaint are legal conclusions to which no response is required.

44. The allegations in Paragraph 44 of the Complaint are legal conclusions to which no response is required.

45. Sound United admits that claim 1 of the '257 Patent is reproduced in Paragraph 45 of the Complaint.

46. Sound United denies the allegations in Paragraph 46 of the Complaint.

47. The allegations in Paragraph 47 of the Complaint are legal conclusions to which no response is required.

48. The allegations in Paragraph 48 of the Complaint are legal conclusions to which no response is required.

49. The allegations in Paragraph 49 of the Complaint are legal conclusions to which no response is required.

50. The allegations in Paragraph 50 of the Complaint are legal conclusions to which no response is required.

51. The allegations in Paragraph 51 of the Complaint are legal conclusions to which no response is required.

52. The allegations in Paragraph 52 of the Complaint are legal conclusions to which no response is required.

53. Sound United denies the allegations in Paragraph 53 of the Complaint.

54. Sound United denies the allegations in Paragraph 54 of the Complaint.

55. Sound United denies the allegations in Paragraph 55 of the Complaint.

56. Sound United denies the allegations in Paragraph 56 of the Complaint.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 10,627,783

57. Sound United repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–56.

58. Sound United admits that U.S. Patent No. 10,627,783 (“’783 Patent”) lists on its face the title “Wearable Electronic Device,” an issue date of April 21, 2020, “Fletcher R. Rothkopf” as one of many named inventors, and “Apple Inc.” as the assignee. The remaining allegations in Paragraph 58 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies that the ’783 Patent was validly issued.

59. The allegations in Paragraph 59 of the Complaint are legal conclusions to which no response is required.

60. The allegations in Paragraph 60 of the Complaint are legal conclusions to which no response is required.

61. Sound United admits that claim 9 of the ’783 Patent is reproduced in Paragraph 61 of the Complaint.

62. Sound United denies the allegations in Paragraph 62 of the Complaint.

63. The allegations in Paragraph 63 of the Complaint are legal conclusions to which no response is required.

64. The allegations in Paragraph 64 of the Complaint are legal conclusions to which no response is required.

65. The allegations in Paragraph 65 of the Complaint are legal conclusions to which no response is required.

66. The allegations in Paragraph 66 of the Complaint are legal conclusions to which no

response is required.

67. The allegations in Paragraph 67 of the Complaint are legal conclusions to which no response is required.

68. The allegations in Paragraph 68 of the Complaint are legal conclusions to which no response is required.

69. Sound United denies the allegations in Paragraph 69 of the Complaint.

70. Sound United denies the allegations in Paragraph 70 of the Complaint.

71. Sound United denies the allegations in Paragraph 71 of the Complaint.

72. Sound United denies the allegations in Paragraph 72 of the Complaint.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 10,942,491

73. Sound United repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–72.

74. Sound United admits that U.S. Patent No. 10,942,491 (“’491 Patent”) lists on its face the title “Wearable Electronic Device,” an issue date of March 9, 2021, “Fletcher R. Rothkopf” as one of many named inventors, and “Apple Inc.” as the assignee. The remaining allegations in Paragraph 74 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies that the ’491 Patent was validly issued.

75. The allegations in Paragraph 75 of the Complaint are legal conclusions to which no response is required.

76. The allegations in Paragraph 76 of the Complaint are legal conclusions to which no response is required.

77. Sound United admits that claim 7 of the ’491 Patent is reproduced in Paragraph 77

of the Complaint.

78. Sound United denies the allegations in Paragraph 78 of the Complaint.

79. The allegations in Paragraph 79 of the Complaint are legal conclusions to which no response is required.

80. The allegations in Paragraph 80 of the Complaint are legal conclusions to which no response is required.

81. The allegations in Paragraph 81 of the Complaint are legal conclusions to which no response is required.

82. The allegations in Paragraph 82 of the Complaint are legal conclusions to which no response is required.

83. The allegations in Paragraph 83 of the Complaint are legal conclusions to which no response is required.

84. The allegations in Paragraph 84 of the Complaint are legal conclusions to which no response is required.

85. The allegations in Paragraph 85 of the Complaint are legal conclusions to which no response is required.

86. Sound United denies the allegations in Paragraph 86 of the Complaint.

87. Sound United denies the allegations in Paragraph 87 of the Complaint.

88. Sound United denies the allegations in Paragraph 88 of the Complaint.

89. Sound United denies the allegations in Paragraph 89 of the Complaint.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 10,987,054

90. Sound United repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–89.

91. Sound United admits that U.S. Patent No. 10,987,054 (“’054 Patent”) lists on its face the title “Wearable Electronic Device for Sensing Biological Parameters,” an issue date of April 27, 2021, “Sameer Pandya” as one of many named inventors, and “Apple Inc.” as the assignee. The remaining allegations in Paragraph 91 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies that the ’054 Patent was validly issued.

92. The allegations in Paragraph 92 of the Complaint are legal conclusions to which no response is required.

93. The allegations in Paragraph 93 of the Complaint are legal conclusions to which no response is required.

94. Sound United admits that claim 9 of the ’054 Patent is reproduced in Paragraph 94 of the Complaint.

95. Sound United denies the allegations in Paragraph 95 of the Complaint.

96. The allegations in Paragraph 96 of the Complaint are legal conclusions to which no response is required.

97. The allegations in Paragraph 97 of the Complaint are legal conclusions to which no response is required.

98. The allegations in Paragraph 98 of the Complaint are legal conclusions to which no response is required.

99. The allegations in Paragraph 99 of the Complaint are legal conclusions to which no response is required.

100. The allegations in Paragraph 100 of the Complaint are legal conclusions to which no response is required.

101. The allegations in Paragraph 101 of the Complaint are legal conclusions to which no response is required.

102. The allegations in Paragraph 102 of the Complaint are legal conclusions to which no response is required.

103. The allegations in Paragraph 103 of the Complaint are legal conclusions to which no response is required.

104. Sound United denies the allegations in Paragraph 104 of the Complaint.

105. Sound United denies the allegations in Paragraph 105 of the Complaint.

106. Sound United denies the allegations in Paragraph 106 of the Complaint.

107. Sound United denies the allegations in Paragraph 107 of the Complaint.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 11,106,352

108. Sound United repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–107.

109. Sound United admits that U.S. Patent No. 11,106,352 (“’352 Patent”) lists on its face the title “Devices, Methods, and Graphical User Interfaces for Accessing Notifications,” an issue date of August 31, 2021, “William M. Tyler” as the inventor, and “Apple Inc.” as the assignee. The remaining allegations in Paragraph 109 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies that the ’352 was validly issued.

110. The allegations in Paragraph 110 of the Complaint are legal conclusions to which no response is required.

111. The allegations in Paragraph 111 of the Complaint are legal conclusions to which no response is required.

112. Sound United admits that claim 9 of the '352 Patent is reproduced in Paragraph 112 of the Complaint.

113. Sound United denies the allegations in Paragraph 113 of the Complaint.

114. The allegations in Paragraph 114 of the Complaint are legal conclusions to which no response is required.

115. The allegations in Paragraph 115 of the Complaint are legal conclusions to which no response is required.

116. The allegations in Paragraph 116 of the Complaint are legal conclusions to which no response is required.

117. The allegations in Paragraph 117 of the Complaint are legal conclusions to which no response is required.

118. The allegations in Paragraph 118 of the Complaint are legal conclusions to which no response is required.

119. The allegations in Paragraph 119 of the Complaint are legal conclusions to which no response is required.

120. The allegations in Paragraph 120 of the Complaint are legal conclusions to which no response is required.

121. Sound United denies the allegations in Paragraph 121 of the Complaint.

122. Sound United denies the allegations in Paragraph 122 of the Complaint.

123. Sound United denies the allegations in Paragraph 123 of the Complaint.

124. Sound United denies the allegations in Paragraph 124 of the Complaint.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 11,474,483

125. Sound United repeats and incorporates here by reference its responses to the

allegations in preceding Paragraphs 1–124.

126. Sound United admits that U.S. Patent No. 11,474,483 (“’483 Patent”) lists on its face the title “Wearable Electronic Device,” an issue date of October 18, 2022, “Fletcher R. Rothkopf” as one of many named inventors, and “Apple Inc.” as the assignee. The remaining allegations in Paragraph 126 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Sound United denies that the ’483 Patent was validly issued.

127. The allegations in Paragraph 127 of the Complaint are legal conclusions to which no response is required.

128. The allegations in Paragraph 128 of the Complaint are legal conclusions to which no response is required.

129. Sound United admits that claim 1 of the ’483 Patent is reproduced in Paragraph 129 of the Complaint.

130. Sound United denies the allegations in Paragraph 130 of the Complaint.

131. The allegations in Paragraph 131 of the Complaint are legal conclusions to which no response is required.

132. The allegations in Paragraph 132 of the Complaint are legal conclusions to which no response is required.

133. The allegations in Paragraph 133 of the Complaint are legal conclusions to which no response is required.

134. The allegations in Paragraph 134 of the Complaint are legal conclusions to which no response is required.

135. The allegations in Paragraph 135 of the Complaint are legal conclusions to which

no response is required.

136. The allegations in Paragraph 136 of the Complaint are legal conclusions to which no response is required.

137. The allegations in Paragraph 137 of the Complaint are legal conclusions to which no response is required.

138. The allegations in Paragraph 138 of the Complaint are legal conclusions to which no response is required.

139. The allegations in Paragraph 139 of the Complaint are legal conclusions to which no response is required.

140. The allegations in Paragraph 140 of the Complaint are legal conclusions to which no response is required.

141. The allegations in Paragraph 141 of the Complaint are legal conclusions to which no response is required.

142. Sound United denies the allegations in Paragraph 142 of the Complaint.

143. Sound United denies the allegations in Paragraph 143 of the Complaint.

144. Sound United denies the allegations in Paragraph 144 of the Complaint.

145. Sound United denies the allegations in Paragraph 145 of the Complaint.

PRAYER FOR RELIEF

Sound United denies that Plaintiff is entitled to any of the relief enumerated in the Complaint or to any relief whatsoever.

DEFENSES

First Defense

The claims of the '257 Patent, '783 Patent, '491 Patent, '054 Patent, '352 Patent, and '483 Patent (collectively, the “Apple Patents”) are invalid for failure to satisfy one or more of the requisite Conditions of Patentability set forth in Title 35 of the United States Code, including, without limitation, §§ 101, 102, 103, 112, and/or in view of the defenses recognized in 35 U.S.C. § 282(b), as further set forth below in Sound United’s counterclaim of invalidity.

Second Defense

The '783, '491, and '483 Patents are unenforceable for inequitable conduct as explained below in Sound United’s counterclaims, the allegations of which are incorporated by reference.

Third Defense

Apple’s claims are barred, in whole or in part, by the doctrine of patent misuse.

Fourth Defense

Apple’s claims are barred, in whole or in part, by the doctrine of unclean hands.

Fifth Defense

Apple’s claims are barred, in whole or in part, by reason of estoppel, the dedication-disclosure rule, and/or the other legal doctrines limiting the scope of the claims and their equivalents. Apple is estopped from construing any valid claim of the Apple Patents to be infringed or to have been infringed, either literally or by application of the doctrine of equivalents, by any product made, used, imported, sold, or offered for sale by Sound United in view of prior art and/or because of admissions, representations, and/or statements made to the Patent Office during prosecution of any application leading to the issuance of the Apple Patents or any related

patent, because of disclosures or language in the specifications of the Apple Patents, and/or because of limitations in the claims of the Apple Patents.

Sixth Defense

To the extent that Apple and/or any predecessors in interest or any licensees to the Apple Patents failed to properly mark any of their relevant products or materials as required by 35 U.S.C. § 287, or otherwise failed to give proper notice that Sound United's actions allegedly infringe the Apple Patents, Sound United is not liable to Apple for the acts alleged to have been performed before Sound United received actual notice that the accused devices were allegedly infringing the Apple Patents. Apple's claims for relief are further barred, in whole or in part, under 35 U.S.C. §§ 286 and 288. Apple failed to give proper notice to Sound United of its claims under the patent laws of the United States and have failed to establish any basis for damages and/or liability prior to patent issuance.

COUNTERCLAIMS

For its counterclaims against Apple, Inc. (“Apple”), Sound United, LLC, (“Sound United”) states and alleges as follows:

I. NATURE OF THE ACTION

These counterclaims seek a declaratory judgment of non-infringement and invalidity of U.S. Patent Nos. 10,076,257; 10,627,783; 10,942,491; 10,987,054; 11,106,352; and 11,474,483 asserted by Apple against Sound United in this action (the “Apple Patents”), as well as unenforceability of U.S. Patent Nos. 10,627,783; 10,942,491; and 11,474,483. Sound United seeks judgment under the Patent Laws of the United States, 35 U.S.C. § 100, et seq., and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202.

II. THE PARTIES

1. Sound United is a Delaware limited liability company with a place of business at 52 Discovery, Irvine, California 92618.

2. As disclosed in Apple’s Complaint, Apple claims to be a California corporation with its principal place of business at One Apple Park Way, Cupertino, California 95014.

III. JURISDICTION AND VENUE

3. These counterclaims arise under the patent laws of the United States, 35 U.S.C. § 100 *et seq.*, and the Declaratory Judgment Act 28, U.S.C. §§ 2201 and 2202.

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1337, 1338, and 1367(a).

5. Venue is proper in this Judicial District because, among other reasons, Apple sued Sound United in this judicial district for infringing the Apple Patents.

6. Venue is also proper in this District under 28 U.S.C. § 1391(b) and (c). For venue purposes, Apple can be found in and transacts business in this District. In addition, Apple has engaged in the conduct alleged herein in this District.

7. Apple is subject to personal jurisdiction in this district because, among other reasons, Apple sued Sound United in this judicial district.

IV. FACTUAL BACKGROUND

A. Apple's Fraudulent Conduct Before The USPTO

8. Apple prosecuted, and now asserts against Sound United, U.S. Patent Nos. 10,627,783 ('783 patent), 10,942,491 ('491 patent), and 11,474,483 ('483 patent) (collectively, the "Utility Patents") even though Apple knows they were fraudulently procured. Apple withheld from the PTO multiple prior art references it knew were material to patentability. Apple had deep knowledge of these references because it asserted them in multiple litigations against Masimo and other medical device companies. These actions constitute fraud through omission because they violated Apple's duty of candor to the PTO. Further, Apple falsely and fraudulently represented, despite knowing of the withheld references, that the claims of the Utility Patents were in condition for allowance. Apple directed its litigation counsel to assert certain references against Masimo in its IPRs and infringement lawsuits, while either withholding those references from its prosecution counsel or directing its prosecution counsel to withhold them. These actions were all done with an intent to deceive the PTO and to fraudulently obtain patents, knowing that the PTO would not issue these patents if the PTO were aware of the withheld references.

9. The following claim charts provide examples of how prior art references that Apple withheld from the PTO anticipate or at a minimum render obvious claims of the Utility Patents:

| Claim 9 of Patent No. 10,627,783 | Disclosure in Withheld References |
|---|--|
| A wearable electronic device, comprising: | |
| a housing comprising a bottom portion defining an opening; | <p>WO2005092182 (“Kotanagi”) provides: “(0045) This biological information measuring device 1 includes a housing (main body) 2 internally equipped with various electrical parts and electronic parts. . . . (0048) The housing 2 described above is made of plastic or a metal material such as aluminum”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0043) The biological information measuring device 1 is provided with a housing (main body) 2 containing various electric components and electronic components. . . (0046) The housing 2 is composed of plastic or a metal material such as aluminum.”</p> |
| a biosensor module aligned with the opening; | <p>WO2005092182 (“Kotanagi”) provides: “(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0009) In particular, when the main body is worn on a wrist using the fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . Furthermore, since the adhesion of the biological sensor part is improved, the light emitting part and the light receiving part are capable of efficiently irradiating and receiving light. . . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22.”</p> |
| a wireless charging receive coil positioned within the housing and aligned with | WO2005092182 (“Kotanagi”) provides: “(0053) Further, an external connection terminal (recharging means) 21 for recharging the rechargeable battery 13 by supplying power from |

| Claim 9 of Patent No. 10,627,783 | Disclosure in Withheld References |
|--|--|
| the opening; a battery operably coupled to the wireless charging receive coil; and | <p>an external device such as a recharger is provided on the side surface of the housing 2. . . . In addition, rather than the external connection terminal 21, a transformer or the like for supplying power to a recharger and to the inside of the housing 2 may be provided so as to recharge the rechargeable battery 13 in a contactless state.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0051) Moreover, an external connection terminal (charging means) 21 for supplying power from outside of the charger or the like to the rechargeable battery 13 and charging it is provided on the side surface of the housing 2. . . . Furthermore, it may be configured so that a transformer or the like for supplying power is provided not only to the external connection terminal 21, but also to the charger and inside the housing 2, respectively, and charging of the rechargeable battery 13 is performed in a non-contact state.”</p> |
| a cover disposed over the biosensor module; wherein: the cover is configured to pass optical signals to and from the biosensor module; and | <p>WO2005092182 (“Kotanagi”) provides: “(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0009) In particular, when the main body is worn on a wrist using the fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22.”</p> |
| the cover is configured to pass wireless power to the wireless charging receive coil. | WO2005092182 (“Kotanagi”) provides: “(0053) . . . In addition, rather than the external connection terminal 21, a transformer or the like for supplying power to a recharger and to the inside of |

| Claim 9 of Patent No. 10,627,783 | Disclosure in Withheld References |
|-------------------------------------|---|
| | <p>the housing 2 may be provided so as to recharge the rechargeable battery 13 in a contactless state.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0051) Moreover, an external connection terminal (charging means) 21 for supplying power from outside of the charger or the like to the rechargeable battery 13 and charging it is provided on the side surface of the housing 2. . . Furthermore, it may be configured so that a transformer or the like for supplying power is provided not only to the external connection terminal 21, but also to the charger and inside the housing 2, respectively, and charging of the rechargeable battery 13 is performed in a non-contact state.”</p> |

| Claim 7 of U.S. Patent No. 10,942,491 | Disclosure in Kotanagi/Tanagi |
|--|--|
| A wearable electronic device comprising: | |
| a housing formed from a conductive material and defining a first opening opposite to a second opening; | <p>WO2005092182 (“Kotanagi”) provides: “(0045) This biological information measuring device 1 includes a housing (main body) 2 internally equipped with various electrical parts and electronic parts. . . .(0048) The housing 2 described above is made of plastic or a metal material such as aluminum”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0043) The biological information measuring device 1 is provided with a housing (main body) 2 containing various electric components and electronic components. . . (0046) The housing 2 is composed of plastic or a metal material such as aluminum.”</p> |
| a band attached to the housing and configured to secure the wearable electronic device to a user; | <p>WO2005092182 (“Kotanagi”) provides: “(0060) The fixing means 3 has a first band 30 and a second band 31 having base end sides that are attached to the housing 2 to enable mounting to the wrist A. The first band 30 and the second band 31 are provided opposite one another so as to sandwich the housing 2 in the longitudinal direction of the housing 2. In addition, both bands 30 and 31 are made of an expandable elastic material.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “The fixing means 3 has a first band 30 and the second band 31 which are attached to the housing 2 by the base end sides and may be worn on the wrist A. The first band 30 and the second band 31 are provided in the longitudinal direction of the housing 2 so as to interpose and face the housing 2. Furthermore, both bands 30 and 31 are formed of a stretchable elastic material.”</p> |
| a display positioned in the first opening; | <p>WO2005092182 (“Kotanagi”) provides: “(0048) . . . A cover glass 10 with a substantially square shape is fitted into the central portion of the upper surface 2b of the housing 2, and a display part 11 for displaying the aforementioned pulse rate that is detected and various other information is disposed inside the cover glass 10.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0046) A substantially square-shaped cover glass 10 is fitted to a center portion of an upper surface 2b of the housing 2, and a display part 11 for displaying the sensed pulse rate and various other information is disposed on an inner side of the cover glass 10.”</p> |
| a cover comprising a non-conductive material and positioned over the second opening, the cover forming | WO2005092182 (“Kotanagi”) provides: “(0046) A biological sensor part 8, which includes an LED (Light Emitting Diode) (light-emitting part) 5 for emitting light toward the living body while in contact with the living body surface B side, a PD |

| Claim 7 of U.S. Patent No. 10,942,491 | Disclosure in Kotanagi/Tanagi |
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| a portion of an exterior surface of the wearable electronic device; | <p>(Photodetector) (light-receiving part) 6 for receiving reflected light from the living body out of the light emitted by the LED 5 and generating a pulse signal (biological information signal) corresponding to the amount of received light, and a contact detection means 7 for detecting whether the LED 5 and the PD 6 are in contact with the living body surface B, is disposed on the lower surface 4a of the protruding part 4 . . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0044) A biological sensor part 8 is disposed on a lower surface 4a of the projection part 4, and has an LED (light emitting part) 5 for irradiating light directed to a biological body when in a state contacting the biological body surface B side, a PD (photodetector) (light receiving part) 6 for receiving reflected light from the biological body from among light irradiated by the LED 5 and generating a pulse signal (biological information signal) corresponding to the received light quantity, and contact sensing means 7 for sensing whether the LED 5 and the PD 6 are contacting the biological body surface B. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22.”</p> |
| a biosensor module positioned below the cover configured to pass an optical signal through a window defined within the non-conductive material of the cover; and | <p>WO2005092182 (“Kotanagi”) provides: “(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22.</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0009) In particular, when the main body is worn on a wrist using the</p> |

| Claim 7 of U.S. Patent No. 10,942,491 | Disclosure in Kotanagi/Tanagi |
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| | fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22.” |
| a wireless charging receive coil aligned with the second opening and below the cover, the wireless charging receive coil configured to inductively couple to an external wireless charging device through the non-conductive material of the cover. | <p>WO2005092182 (“Kotanagi”) provides: “(0053) Further, an external connection terminal (recharging means) 21 for recharging the rechargeable battery 13 by supplying power from an external device such as a recharger is provided on the side surface of the housing 2. . . . In addition, rather than the external connection terminal 21, a transformer or the like for supplying power to a recharger and to the inside of the housing 2 may be provided so as to recharge the rechargeable battery 13 in a contactless state.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0051) Moreover, an external connection terminal (charging means) 21 for supplying power from outside of the charger or the like to the rechargeable battery 13 and charging it is provided on the side surface of the housing 2. . . . Furthermore, it may be configured so that a transformer or the like for supplying power is provided not only to the external connection terminal 21, but also to the charger and inside the housing 2, respectively, and charging of the rechargeable battery 13 is performed in a non-contact state.”</p> |

| Claim 1 of U.S. Patent No. 11,474,483 | Disclosure in Withheld References |
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| A wearable electronic device comprising: | |
| a housing defining a first opening and a second opening; | <p>WO2005092182 (“Kotanagi”) provides: “(0045) This biological information measuring device 1 includes a housing (main body) 2 internally equipped with various electrical parts and electronic parts. . . .”</p> <p>(0048) The housing 2 described above is made of plastic or a metal material such as aluminum”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0043) The biological information measuring device 1 is provided with a housing (main body) 2 containing various electric components and electronic components. . . (0046) The housing 2 is composed of plastic or a metal material such as aluminum.”</p> |
| a display positioned at least partially within the first opening; | <p>WO2005092182 (“Kotanagi”) provides: “(0048) . . . A cover glass 10 with a substantially square shape is fitted into the central portion of the upper surface 2b of the housing 2, and a display part 11 for displaying the aforementioned pulse rate that is detected and various other information is disposed inside the cover glass 10.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0046) A substantially square-shaped cover glass 10 is fitted to a center portion of an upper surface 2b of the housing 2, and a display part 11 for displaying the sensed pulse rate and various other information is disposed on an inner side of the cover glass 10.”</p> |
| a front cover positioned over the display and defining at least a portion of a front exterior surface of the wearable electronic device; | <p>WO2005092182 (“Kotanagi”) provides: “(0048) The housing 2 described above is made of plastic or a metal material such as aluminum A cover glass 10 with a substantially square shape is fitted into the central portion of the upper surface 2b of the housing 2, and a display part 11 for displaying the aforementioned pulse rate that is detected and various other information is disposed inside the cover glass 10.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0046) The housing 2 is composed of plastic or a metal material such as aluminum. . . A substantially square-shaped cover glass 10 is fitted to a center portion of an upper surface 2b of the housing 2, and a display part 11 for displaying the sensed pulse rate and various other information is disposed on an inner side of the cover glass 10.”</p> |
| a biosensor module comprising: | WO2005092182 (“Kotanagi”) provides: “(0046) A biological sensor part 8, which includes an LED (Light Emitting Diode) |

| Claim 1 of U.S. Patent No. 11,474,483 | Disclosure in Withheld References |
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| | <p>(light-emitting part) 5 for emitting light toward the living body while in contact with the living body surface B side, a PD (Photodetector) (light-receiving part) 6 for receiving reflected light from the living body out of the light emitted by the LED 5 and generating a pulse signal (biological information signal) corresponding to the amount of received light, and a contact detection means 7 for detecting whether the LED 5 and the PD 6 are in contact with the living body surface B, is disposed on the lower surface 4a of the protruding part 4. . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0044) A biological sensor part 8 is disposed on a lower surface 4a of the projection part 4, and has an LED (light emitting part) 5 for irradiating light directed to a biological body when in a state contacting the biological body surface B side, a PD (photodetector) (light receiving part) 6 for receiving reflected light from the biological body from among light irradiated by the LED 5 and generating a pulse signal (biological information signal) corresponding to the received light quantity, and contact sensing means 7 for sensing whether the LED 5 and the PD 6 are contacting the biological body surface B. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22.”</p> |
| <p>a rear cover positioned at least partially within the second opening and defining an optically transparent window and a protruding convex surface;</p> | <p>WO2005092182 (“Kotanagi”) provides: “(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . .(0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22. . . .”</p> |

| Claim 1 of U.S. Patent No. 11,474,483 | Disclosure in Withheld References |
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| | JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0009) In particular, when the main body is worn on a wrist using the fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22.” |
| an optical sensor aligned with the optically transparent window; | <p>WO2005092182 (“Kotanagi”) provides: “(0046) A biological sensor part 8, which includes an LED (Light Emitting Diode) (light-emitting part) 5 for emitting light toward the living body while in contact with the living body surface B side, a PD (Photodetector) (light-receiving part) 6 for receiving reflected light from the living body out of the light emitted by the LED 5 and generating a pulse signal (biological information signal) corresponding to the amount of received light, and a contact detection means 7 for detecting whether the LED 5 and the PD 6 are in contact with the living body surface B, is disposed on the lower surface 4a of the protruding part 4.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0044) A biological sensor part 8 is disposed on a lower surface 4a of the projection part 4, and has an LED (light emitting part) 5 for irradiating light directed to a biological body when in a state contacting the biological body surface B side, a PD (photodetector) (light receiving part) 6 for receiving reflected light from the biological body from among light irradiated by the LED 5 and generating a pulse signal (biological information signal) corresponding to the received light quantity, and contact sensing means 7 for sensing whether the LED 5 and the PD 6 are contacting the biological body surface B.</p> |
| a first electrode positioned along a rear surface of the wearable electronic device; and a second electrode positioned along the rear surface of the wearable electronic device; and | WO2005092182 (“Kotanagi”) provides: “(0058) The contact detection means 7 has a pair of electrodes 7a and 7b, and the pair of electrodes 7a and 7b are disposed on the lower surface 4a of the protruding part 4 so as to sandwich the LED 5 and the PD 6. . . . In addition, the pair of electrodes 7a and 7b are provided so that the tips thereof protrude slightly more than lower surface 4a of the protruding part 4 and are provided so that the base end sides are electrically connected to the sub-board 15. . . (0059) The pair of electrodes 7a and 7b have a function of detecting whether there is contact with the living |

| Claim 1 of U.S. Patent No. 11,474,483 | Disclosure in Withheld References |
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| | <p>body surface B based on the potential difference between the electrodes. . . .”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0056) The contact sensing means 7 has a pair of electrodes 7a and 7b, and the pair of electrodes 7a and 7b is disposed on the lower surface 4a of the projection part 4 in a state interposing between the LED 5 and the PD 6. That is, the pair of electrodes 7a and 7b, the LED 5, and the PD 6 are disposed so as to be aligned in a row in a direction orthogonal to the longitudinal direction of the housing 2. Furthermore, the pair of electrodes 7a and 7b is provided so that the tips thereof slightly project from the lower surface 4a of the projection part 4, and the base end sides are electrically connected to the sub-substrate 15.”</p> |
| a third electrode positioned along a side of the wearable electronic device, wherein: | <p>PCT Publication No. 2012/140559 (“Shmueli”) provides: “As shown in Figs. 1A and 1B, the heart monitoring device 10 is preferably equipped with two types of sensing devices: and oximetry (SpO2) measuring unit and an ECG measuring unit. The oximetry measuring unit preferably includes an oximetry sensor 13 mounted in the back side of the monitoring unit 11 and facing the skin of the subject. The ECG measuring unit preferably includes at least three areas 14, each providing electrical contact with the subject. As shown in Figs. 1A and 1B, at least one of the electrical contacts 14 designated by the numeral 15 is mounted in the back side of the monitoring unit 11 and facing the skin of the subject, and at least two electrical contacts 14 designated by the numeral 16 are mounted on the front side of the monitoring unit 11. . . As shown in Fig. 3, the heart monitoring device 10 is preferably worn on the wrist of the first hand of the subject. The oximetry sensor 13 (not shown) preferably faces the front side of the hand. One electrical contact (not shown) mounted on the back side of the heart monitoring device 10 touches the skin of the subject at the wrist, and two of the fingers of the second hand of the subject touch the two electrical contacts 14 on the front side of the heart monitoring device 10.”</p> |
| the wearable electronic device is configured to measure a first physiological parameter of a wearer using the optical sensor; and | <p>WO2005092182 (“Kotanagi”) provides: “(0065) Upon detecting that the LED 5 and the PD 6 are in contact with the living body surface B, the data processing part 9 emits light from the LED 5 toward the living body. A portion of the emitted light is absorbed, for example, by hemoglobin in blood vessels, and another portion of the light is reflected by biological tissue. The PD 6 receives this reflected light, generates a pulse signal (biological information signal) corresponding to the amount of</p> |

| Claim 1 of U.S. Patent No. 11,474,483 | Disclosure in Withheld References |
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| | <p>received light, and outputs the signal to the data processing part 9. That is, since the amount of reflected light out of the light emitted from the LED 5 varies depending on fluctuations in blood flow within arteries and arterioles in the wrist A (living body), the PD 6 can receive reflected light corresponding to the pulsation of arteries □ that is, pulse waves. As a result, the PD 6 can generate a pulse signal.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0063) When it is sensed that the LED 5 and the PD 6 are contacting the biological body surface B, the data processing part 9 irradiates light from the LED 5 directed to the biological body surface B. A part of the irradiated light is absorbed by, for example, hemoglobin in blood vessels, and another part of the light is reflected by biological tissue. The PD 6 receives the reflected light and generates a pulse signal (biological information signal) corresponding to the received light quantity, and this is output to the data processing part 9. That is, since the reflected light amount of light irradiated from the LED 5 varies according to blood flow fluctuations in the arteries and arterioles inside the wrist A (biological body), the PD 6 is able to receive reflected light according to pulsation — that is, pulse-waves — of an artery. As a result, the PD 6 is capable of generating the pulse signal.”</p> |
| <p>the wearable electronic device is configured to measure a second physiological parameter using the first electrode, the second electrode, and the third electrode.</p> | <p>WO2005092182 (“Kotanagi”) provides: “(0064) . . . When the pair of electrodes 7a and 7b come into contact with the living body surface B, a discharge occurs through the living body surface B so that the voltage between the electrodes drops. Upon receiving this voltage drop (for example, a drop below a given threshold), the data processing part 9 detects that the pair of electrodes 7a and 7b are indeed in contact with the living body surface B. That is, it detects that the biological sensor part 8 including the LED 5 and the PD 6 is indeed in contact with the living body surface B. In particular, since the pair of electrodes 7a and 7b are disposed so as to sandwich the LED 5 and the PD 6, it can be detected with high precision whether the LED 5 and the PD 6 are in contact with the living body surface B.”</p> <p>JP Pub. No. 2005-270543 (“Tanagi”) provides: “(0062) When the pair of electrodes 7a and 7b contacts the biological body surface B, discharge is carried out through the biological body surface B, and the voltage between both electrodes drops. Upon receiving the drop in voltage (for example, lower than a certain</p> |

| Claim 1 of U.S. Patent No. 11,474,483 | Disclosure in Withheld References |
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| | <p>threshold), the data processing part 9 senses that the pair of electrodes 7a and 7b is securely contacting the biological body surface B. That is, it senses that the biological sensor part 8 including the LED 5 and the PD 6 is securely contacting the biological body surface B. In particular, since the pair of electrodes 7a and 7b is disposed interposing between the LED 5 and the PD 6, it is possible to sense with high accuracy whether the LED 5 and the PD 6 are contacting the biological body surface B.”</p> |

12. As discussed below, Apple withheld but-for material references, including Kotanagi, Tanagi, and Shmueli during the prosecution of the Utility Patents.

a. Kotanagi and Tanagi

13. During prosecution, Apple withheld WO2005092182 (“Kotanagi”) and its family member, JP Pub. No. 2005-270543 (“Tanagi”)¹, from the PTO as prior art. These were not passing references of which Apple was tangentially aware. Rather, at the same time, Apple asserted and relied on Kotanagi and Tanagi in nine *inter partes* review (“IPR”) proceedings against Masimo. Myers and others at Apple specifically intended to, and did, withhold these material references from the examiners. Myers and others at Apple specifically intended to, and did, allow the examiners to issue claims they would not have issued if Myers and others at Apple had disclosed Kotanagi or Tanagi to them. At least one of these claims is now being asserted against Sound United.

14. The charts above provide examples of how Kotanagi and Tanagi anticipate or at a minimum render obvious claims of the Utility Patents. For example, the ’783 patent claims a wearable electronic device with “a wireless charging receive coil positioned within the housing and aligned with the opening . . . configured to pass wireless power to the wireless charging receive coil.” The ’491 patent similarly claims “a wireless charging receive coil . . . configured to inductively couple to an external wireless charging device through the non-conductive material of the cover.”

¹ The “Kotanagi” referred to in WO2005092182 is the same person referred to as “Tanagi” in JP Pub. No. 2005-270543. The words “Tanagi” and “Kotanagi” are two different English translations of the same person’s name. The family that Kotanagi and Tanagi belong to is referred to as the “Kotanagi patent family.”

15. Kotanagi discloses a wearable electronic device where, “rather than [an] external connection terminal 21, a transformer or the like for supplying power to a recharger . . . may be provided so as to recharge the rechargeable battery 13 in a *contactless state*.” Tanagi similarly discloses a wearable electronic device where “a transformer or the like for supplying power is provided . . . and charging of the rechargeable battery 13 is performed in a *non-contact state*.” Kotanagi and Tanagi anticipate or at a minimum render obvious the “wireless charging receive coil” as claimed by the ’783 and ’491 patents. As such, the examiners for the ’783 and ’491 patents would not have allowed the patents’ claims if Apple did not withhold Kotanagi or Tanagi from them.

16. In another example, the ’483 patent claims a wearable electronic device with “a first electrode positioned along a rear surface of the wearable electronic device; and a second electrode positioned along the rear surface of the wearable electronic device.”

17. Kotanagi discloses a wearable electronic device with “a pair of electrodes 7a and 7b, and the pair of electrodes 7a and 7b are disposed on the lower surface 4a of the protruding part 4.” Tanagi similarly discloses a wearable electronic device with “a pair of electrodes 7a and 7b . . . disposed on the lower surface 4a of the projection part 4. . .” Kotanagi and Tanagi anticipate or at a minimum render obvious the first[second] electrode positioned along the rear surface of the wearable electronic device claimed in the ’483 patent. As such, the examiner for the ’483 patent would not have allowed the patent’s claims if Apple did not withhold Kotanagi or Tanagi from them.

18. From September 2016 to April 2020, Apple submitted twenty-nine information disclosure statements to the PTO when prosecuting the ’783 patent. From March 2020 to February 2021, Apple submitted nine information disclosure statements to the PTO when prosecuting the

'491 patent. From February to September 2022, Apple submitted two information disclosure statements to the PTO when prosecuting the '483 patent. None of these information disclosure statements mention Kotanagi or Tanagi.

19. On December 13, 2019, Apple cited Tanagi, and a certified English translation thereof, against Masimo in its IPR petitions of U.S. Patent Nos. 10,624,564 (IPR2020-01713) and 10,631,765 (IPR2020-01714 and IPR2020-01715). In these IPRs, Apple asserted Tanagi to support its obviousness arguments.

20. On July 15, 2022, Apple asserted Kotanagi, and a certified English translation thereof, against Masimo in its IPR petitions of U.S. Patent Nos. 10,912,501 (IPR2022-01271 and IPR2022-01272), 10,912,502 (IPR2022-01273 and IPR2022-01274), and 10,945,648 (IPR2022-01275 and IPR2022-01276). Apple asserted Kotanagi as the basis for four of its eight grounds in IPR2022-01271, all grounds in IPR2022-01272, two of four grounds in IPR2022-01273, all grounds in IPR2022-01274, five of nine grounds in IPR2022-01275, and all four grounds in IPR2022-01276.

21. Apple, at least through its Chief IP Counsel Jeffrey Myers, was aware of the Kotanagi Patent Family during the prosecution of the Utility Patents. From September 10, 2016, to September 28, 2022, Myers was an attorney of record for prosecution of the Utility Patents. On August 9, 2021, Myers also signed the power of attorney authorizing Fish and Richardson to represent Apple in IPR2022-01271, IPR2022-01272, IPR2022-01273, IPR2022-01274, IPR2022-01275, and IPR2022-01276, described above. At least Myers thus had a deep knowledge of the Kotanagi Patent Family and its applicability as a prior art reference. Despite this knowledge, Myers and others at Apple withheld the Kotanagi Patent Family from the USPTO during prosecution of the Utility Patents.

22. Mr. Myers and others at Apple selected the law firm Brownstein Hyatt Farber Schreck, LLP to prosecute the Utility Patents. On information and belief, Mr. Myers and others at Apple selected a different firm, Fish and Richardson, to represent Apple in the IPRs, in part to facilitate Apple's inequitable conduct. By using different firms, Mr. Myers and others at Apple compartmentalized information about these patents and publications so that Brownstein Hyatt Farber Schreck, LLP would not disclose but-for material information. Additionally, Mr. Myers and others at Apple affirmatively concealed the Kotanagi Patent Family from the USPTO. Identifying this information to the USPTO would have resulted in the USPTO rejecting the claims and not issuing the patents. The single most reasonable inference from this conduct is that they intended to deceive the Patent Office into improperly allowing the Utility Patents.

b. Shmueli

23. While prosecuting the '483 patent, Apple withheld PCT Pub. No. 2012/140559 (Shmueli) from the PTO as prior art. At the same time, Apple asserted and relied on Shmueli in five IPRs against Alivecor. On information and belief, Myers and others at Apple specifically intended to, and did, withhold a material reference from the examiner during the '483 patent's prosecution. Myers and others at Apple specifically intended to, and did, allow the examiner to issue claims he would not have issued if Apple had disclosed Shmueli to him. At least one of these claims is now being asserted against Sound United.

24. The charts above provide examples of how Shmueli anticipate or at a minimum render obvious claims of the Utility Patents. For example, the '483 patent claims "an electronic watch comprising: . . . *a first electrode* positioned along the rear exterior surface of the electronic watch; and *a second electrode* positioned along the rear exterior surface of the electronic watch; and *a third electrode* positioned along a side of the electronic watch, wherein the electronic watch

is configured to . . . measure a second physiological parameter using *the first electrode, the second electrode, and the third electrode.*”

25. Shmueli claims in part a method whereby an ECG measurement “comprises the steps of: *providing at least two separate conductive areas configured to measure electrical activity of [a] subject.*”

26. Shmueli further claims that this ECG measurement can perform “the step[] of: . . . (ii) contacting a *first conductive area* to at least a portion of said wrist, and a *second and a third conductive areas* to two fingers of a second hand of the subject . . .”

27. Shmueli anticipates the wearable electronic device comprising “*a first electrode* positioned along the rear exterior surface of the electronic watch; and *a second electrode* positioned along the rear exterior surface of the electronic watch; and *a third electrode* positioned along a side of the electronic watch” claimed by the ’483 patent. Thus, if the USPTO had been aware of Shmueli while examining the ’483 patent, it would not have issued the ’483 patent.

28. The examiner was unaware of Shmueli while examining the ’483 patent. During the ’483 patent’s prosecution from February 15 to September 28, 2022, Apple submitted two information disclosure statements to the PTO. Neither of these information disclosure statements mention Shmueli.

29. On June 9, 2021, Apple asserted Shmueli against Alivecor in its IPR petitions of U.S. Patent Nos. 9,572,499 (IPR2021-00970), 10,595,731 (IPR2021-00971), and 10,638,941 (IPR2021-00972). Apple asserted Shmueli as the primary reference for all two grounds in IPR2021-00970, all five grounds in IPR2021-00971, and all three grounds in IPR2021-00972.

30. On September 26, 2022, Apple again asserted Shmueli against Alivecor in its IPR petitions of U.S. Patent Nos. 9,420,956 (IPR2022-01560) and 10,159,415 (IPR2022-01562).

Apple asserted Shmueli as the primary reference for all four grounds in IPR2022-01560, and all three grounds in IPR2022-01562.

31. Apple, through its Chief IP Counsel Jeffrey Myers, was aware of Shmueli during the '483 patent's prosecution. From February 15, 2022 to September 28, 2022, Myers was an attorney of record for prosecution of the '483 patent. On May 6, 2021, Myers also signed the power of attorney authorizing Fish and Richardson to represent Apple in IPR2021-00970, IPR2021-00971, and IPR2021-00972 described above. On August 12, 2022, Myers also signed the power of attorney authorizing Fish and Richardson to represent Apple in IPR2022-01560 and IPR2022-01562 described above. On information and belief, at least Myers had a deep knowledge of Shmueli and its applicability as a prior art reference. Despite this knowledge, Myers and others at Apple withheld Shmueli from the USPTO during prosecution of the '483 patent.

32. Mr. Myers and others at Apple selected the law firm Brownstein Hyatt Farber Schreck, LLP to prosecute the '483 patent. Mr. Myers and others at Apple selected a different firm, Fish and Richardson, to represent Apple in the IPRs. On information and belief, through this scheme, Mr. Myers and others at Apple compartmentalized information about this publication so that Brownstein Hyatt Farber Schreck, LLP would not disclose but-for material information. Additionally, Mr. Myers and others at Apple affirmatively concealed the Shmueli from the USPTO. On information and belief, they did so because they knew that identifying this information to the USPTO would have resulted in the USPTO rejecting the claims and not issuing the patents. The single most reasonable inference from this conduct is that they intended to deceive the Patent Office into improperly allowing the Utility Patents.

33. The effect of Apple's conduct is not limited to the Utility Patents. All subsequent "child" or other related patents that are based on the same specification or relevant portions thereof,

are tainted by Apple's inequitable conduct and, therefore, are also unenforceable under the doctrine of infectious unenforceability.

34. Accordingly, the '783, '491, and '483 Patents are unenforceable due to inequitable conduct.

V. FIRST COUNT

(Declaratory Judgment of Noninfringement of the '257 Patent)

35. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

36. Apple contends that it owns the '257 Patent and that Sound United infringes at least claim 1 of the '257 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

37. There exists an actual and justiciable controversy between Apple and Sound United regarding whether Sound United has infringed any claims of the '257 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

38. The W1 does not infringe any claims of the '257 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "a heart sensor configured to detect the user's cardiac signal, the heart sensor comprising: a first lead comprising a first pad that is embedded in a first portion of the enclosure, wherein an exterior surface of the enclosure comprises an exterior surface of the first portion, wherein the first pad is positioned underneath the exterior surface of the first portion, and wherein the first pad is configured to detect a first electrical signal of the user's cardiac signal via the user's skin's contact with the exterior surface of the first portion of the enclosure; and a second lead comprising a second pad that is embedded

in a second portion of the enclosure, wherein the second pad is configured to detect a second electrical signal of the user's cardiac signal via the user's skin's contact with at least one of the second pad and the second portion of the enclosure.”

39. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Sound United requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '257 Patent.

VI. SECOND COUNT

(Declaratory Judgment of Noninfringement of the '783 Patent)

40. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

41. Apple contends that it owns the '783 Patent, and that Sound United infringes at least claim 9 of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

42. There exists an actual and justiciable controversy between Apple and Sound United regarding whether Sound United has infringed any claims of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

43. The W1 does not infringe any claims of the '783 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include “a biosensor module aligned with the opening” and “a wireless charging receive coil positioned with the housing and aligned with the opening.”

44. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Sound United requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '783 Patent.

VII. THIRD COUNT

(Declaratory Judgment of Noninfringement of the '491 Patent)

45. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

46. Apple contends that it owns the '491 Patent, and that Sound United infringes at least claim 7 of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch and charger.

47. There exists an actual and justiciable controversy between Apple and Sound United regarding whether Sound United has infringed any claims of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch and charger, and this controversy is ripe for adjudication by this Court.

48. The W1 does not infringe any claims of the '491 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include “a biosensor module positioned below the cover configured to pass an optical signal through a window defined within the non-conductive material of the cover; and a wireless charging receive coil aligned with the second opening and below the cover, the wireless charging receive coil configured to inductively couple to an external wireless charging device through the nonconductive material of the cover.”

49. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Sound United requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger not infringe any valid and enforceable claim of the '491 Patent.

VIII. FOURTH COUNT

(Declaratory Judgment of Noninfringement of the '054 Patent)

50. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

51. Apple contends that it owns the '054 Patent, and that Sound United infringes at least claim 9 of the '054 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

52. There exists an actual and justiciable controversy between Apple and Sound United regarding whether Sound United has infringed any claims of the '054 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

53. The W1 does not infringe any claims of the '054 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include “carrier assembly coupled to the rectangular housing member and comprising: a carrier member having a circular carrier profile and positioned over the circular rear opening; a rear electrode positioned on the carrier member and configured to receive a first voltage signal from a wrist of a user; an optical sensor system comprising: an optical emitter positioned below a first region of the carrier member; and an optical receiver positioned below a second region of the carrier member; a side electrode positioned along an exterior of the rectangular housing member and configured to receive a second voltage signal from a finger of the user.”

54. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Sound United requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 does not infringe any valid and enforceable claim of the '054 Patent.

IX. FIFTH COUNT

(Declaratory Judgment of Noninfringement of the '352 Patent)

55. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

56. Apple contends that it owns the '352 Patent, and that Sound United infringes at least claim 9 of the '352 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

57. There exists an actual and justiciable controversy between Apple and Sound United regarding whether Sound United has infringed any claims of the '352 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

58. The W1 does not infringe any claims of the '352 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include “memory storing instructions, the instructions, when executed by the one or more processors, cause the processors to perform operations comprising: while the computer system is in a power saving state, detecting an input that meets display-waking criteria; in response to detecting the input that meets the display-waking criteria, displaying, via the display generation component, a wake screen user interface; while displaying the wake screen user interface, detecting a first input that is directed to a portion of the wake screen user interface and includes first movement.”

59. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Sound United requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '352 Patent.

X. SIXTH COUNT

(Declaratory Judgment of Noninfringement of the '483 Patent)

60. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

61. Apple contends that it owns the '483 Patent, and that Sound United infringes at least claim 1 of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

62. There exists an actual and justiciable controversy between Apple and Sound United regarding whether Sound United has infringed any claims of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

63. The W1 does not infringe any claims of the '483 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include “biosensor module comprising: a rear cover positioned at least partially within the second opening and defining an optically transparent window and a protruding convex surface” and “a third electrode positioned along a side of the wearable electronic device.”

64. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Sound United requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '483 Patent.

XI. SEVENTH COUNT

(Declaratory Judgment of Invalidity of the '257 Patent)

65. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

66. Apple contends that it owns the '257 Patent and that Sound United infringes at least claim 1 of the '257 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

67. There exists an actual and justiciable controversy between Apple and Sound United regarding the invalidity of one or more claims of the '257 Patent, and this controversy is ripe for adjudication by this Court.

68. One or more claims of the '257 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

69. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that one or more claims of the '257 Patent are invalid.

XII. EIGHTH COUNT

(Declaratory Judgment of Invalidity of the '783 Patent)

70. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

71. Apple contends that it owns the '783 Patent and that Sound United infringes at least claim 9 of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

72. There exists an actual and justiciable controversy between Apple and Sound United regarding the invalidity of one or more claims of the '783 Patent, and this controversy is ripe for adjudication by this Court.

73. One or more claims of the '783 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

74. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that one or more claims of the '783 Patent are invalid.

XIII. NINTH COUNT

(Declaratory Judgment of Invalidity of the '491 Patent)

75. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

76. Apple contends that it owns the '491 Patent and that Sound United infringes at least claim 7 of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch and charger.

77. There exists an actual and justiciable controversy between Apple and Sound United regarding the invalidity of one or more claims of the '491 Patent, and this controversy is ripe for adjudication by this Court.

78. One or more claims of the '491 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

79. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that one or more claims of the '491 Patent are invalid.

XIV. TENTH COUNT

(Declaratory Judgment of Invalidity of the '054 Patent)

80. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

81. Apple contends that it owns the '054 Patent and that Sound United infringes at least claim 9 of the '054 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

82. There exists an actual and justiciable controversy between Apple and Sound United regarding the invalidity of one or more claims of the '054 Patent, and this controversy is ripe for adjudication by this Court.

83. One or more claims of the '054 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

84. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that one or more claims of the '054 Patent are invalid.

XV. ELEVENTH COUNT

(Declaratory Judgment of Invalidity of the '352 Patent)

85. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

86. Apple contends that it owns the '352 Patent and that Sound United infringes at least claim 9 of the '352 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

87. There exists an actual and justiciable controversy between Apple and Sound United regarding the invalidity of one or more claims of the '352 Patent, and this controversy is ripe for adjudication by this Court.

88. One or more claims of the '352 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

89. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that one or more claims of the '352 Patent are invalid.

XVI. TWELFTH COUNT

(Declaratory Judgment of Invalidity of the '483 Patent)

90. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

91. Apple contends that it owns the '483 Patent and that Sound United infringes at least claim 1 of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

92. There exists an actual and justiciable controversy between Apple and Sound United regarding the invalidity of one or more claims of the '483 Patent, and this controversy is ripe for adjudication by this Court.

93. One or more claims of the '483 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

94. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that one or more claims of the '483 Patent are invalid.

XVII. THIRTEENTH COUNT

(Declaratory Judgment of Unenforceability of the '783 Patent)

95. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

96. Apple contends that it owns the '783 Patent and that Sound United infringes at least claim 9 of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

97. There exists an actual and justiciable controversy between Apple and Sound United regarding the enforceability of the '783 Patent, and this controversy is ripe for adjudication by this Court.

98. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that the '783 Patent is unenforceable.

XVIII. FOURTEENTH COUNT

(Declaratory Judgment of Unenforceability of the '491 Patent)

99. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

100. Apple contends that it owns the '491 Patent and that Sound United infringes at least claim 7 of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

101. There exists an actual and justiciable controversy between Apple and Sound United regarding the enforceability of the '491 Patent, and this controversy is ripe for adjudication by this Court.

102. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that the '491 Patent is unenforceable.

XIX. FIFTEENTH COUNT

(Declaratory Judgment of Unenforceability of the '483 Patent)

103. Sound United incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

104. Apple contends that it owns the '483 Patent and that Sound United infringes at least claim 1 of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

105. There exists an actual and justiciable controversy between Apple and Sound United regarding the enforceability of the '483 Patent, and this controversy is ripe for adjudication by this Court.

106. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Sound United requests a judicial declaration that the '483 Patent is unenforceable.

SOUND UNITED'S PRAYER FOR RELIEF

WHEREFORE, Sound United prays for judgment in its favor against Apple for the following relief.

- A. A jury trial on all issues so triable;
- B. That all claims against Sound United be dismissed with prejudice and that all relief requested by Apple be denied;
- C. Judgment be entered in Sound United's favor on each cause of action in the counterclaims;
- D. That a judgment be entered that Sound United has not and does not infringe (either

literally or under the doctrine of equivalents) any valid, enforceable claim of the Apple Patents;

E. That a judgment be entered declaring the claims of the Apple Patents invalid and the claims of the '783, '491, and '483 Patents unenforceable;

F. That Apple and its agents, representatives, attorneys and other persons in active concert or participation with them who receive actual notice thereof, be preliminarily and permanently enjoined from threatening or initiating infringement litigation against Sound United or any of its customers, distributors, or suppliers, or charging any of them either orally or in writing with infringement of the Apple Patents.

G. A finding that this is an exceptional case and an award of reasonable attorneys' fees and non-taxable costs, pursuant to 35 U.S.C. § 285;

H. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38(b), Defendant and Counterclaimant Sound United, LLC, demands a trial by jury on all issues so triable.

July 5, 2023

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